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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/196,916	11/20/98	RUMBACH	A 364/51

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IM62/0412

EXAMINER

MCNEIL, J

ART UNIT

PAPER NUMBER

1775

3

DATE MAILED: 04/12/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/196,916

Applicant(s)

Rumbach et al

Examiner

Jennifer McNell

Group Art Unit

1775

☒ Responsive to communication(s) filed on Nov 20, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-17 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-17 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Specification

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

- (a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.
- (b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.
- (c) In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

The specification is objected to under 37 CFR 1.71 because applicant has failed to provide an adequate written description of the invention. The copper-nickel-zinc alloy is reported in percentages, however, it is never clarified whether this is atomic or weight percent.

The disclosure is objected to because of the following informalities: The tables have the term "reminder". Should it be --remainder--? Appropriate correction is required.

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Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The proper notation of the percentages, whether atomic or weight, of the alloy is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The specification and claims fail to disclose whether the alloy is reported in atomic or weight percent. This omission renders the claims not enabled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was

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commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-6, and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morikawa et al (US 4,525,434) in view of McDonald et al (US 4,631,171). Morikawa et al teach a copper alloy having high resistance to oxidation including 10-30 wt% Zn, and 0.2-10 wt% Ni, with the balance being Cu for use as an electrical lead (see column 2, lines 11-44). Morikawa et al teach a copper or copper alloy substrate clad with the above composition. Morikawa et al further teach that zinc increases the strength of the alloy and reduces casting defects, and nickel increases strength and heat resistance (see column 2, lines 63-68 and column 3, lines 8-10). The thickness of the clad materials may be 0.025 to .25 mm thick (see column 4, lines 15-37). Morikawa et al do not give another range for the nickel component of the alloy. McDonald et al teach a copper-zinc-nickel alloy which is compatible with a number of other materials and provides high strength. This alloy is known as nickel-silver and is composed of 55-65% copper, 17-27% zinc, and 15-20% nickel (see column 1, lines 34-42). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the copper-nickel-zinc alloy taught by McDonald et al as the cladding material in the device taught by Morikawa et al to provide a

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material with a higher melting point, which is compatible with other materials, and which provides higher strength.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morikawa et al (US 4,525,434) in view of Badia (US 3,403,997). Morikawa et al teach a copper alloy having high resistance to oxidation including 10-30 wt% Zn, and 0.2-10 wt% Ni, with the balance being Cu for use as an electrical lead as mentioned above, but do not give another range for the nickel component of the alloy. Badia teaches that copper-nickel-zinc alloys are well known to those skilled in the art and are commonly called "nickel silvers" and contain 45-72% copper, 9-20% nickel, and 10-43% zinc. Badia also teaches that nickel-silvers have good corrosion resistance and good cold working characteristics, such as are required for cold rolling (see column 1, lines 17-47). Badia also teaches that the compositions are useful as electrical contacts (see column 7, lines 33-36). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a nickel-silver composition taught by Badia in the device taught by Morikawa et al to provide a material with good corrosion resistance and having good cold working characteristics for cladding.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morikawa et al (US 4,525,434) and McDonald et al (US 4,631,171) as applied to claim 1 above, and further in view of Meyrat et al (US 4,842,536). Morikawa et al teach a metal clad lead with a copper-zinc-nickel alloy and McDonald et al teach a copper-zinc-nickel alloy as mentioned above, and further both teach the applicability in electrical settings but neither specifically teach the use of the alloys

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as a plug connector. Meyrat et al teaches a plug connector having a contact element composed of an alloy of nickel, copper, and zinc (see column 6, lines 9-20). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a copper-nickel-zinc alloy as taught by McDonald et al clad on copper as taught by Morikawa as the contact element of a plug connector taught by Meyrat et al to provide a connection with good compatibility with other materials, a high melting point, and high strength.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patent to Susuki et al (US 5,885,376) teaches a corrosion resistant copper based alloy.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer McNeil whose telephone number is (703) 305-0553. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones, can be reached at (703) 308-3822.

When filing a fax in Group 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of this application. This will

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expedite processing of your papers. The fax number for this Group are (703) 305-3599 for "Official" faxes and (703) 3055436 for "Unofficial" faxes.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-0661.



Jennifer McNeil
Patent Examiner
AU 1775


DEBORAH JONES

SUPERVISORY PATENT EXAMINER